

REMARKS/ARGUMENTS

Claims 1-34 have been resubmitted. Claims 1 and 2 have been amended. Support for the amendment can be found in the specification and originally filed claims, particularly page 14, lines 3-9.

Double Patenting

Claims 1-34 have been rejected under the judicially created doctrine of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-63 of U.S. Patent No. 6,723,308 and claims 1-62 of U.S. Patent No. 6,805,136. Applicant respectfully traverses the rejection and requests reconsideration.

In an effort to expedite prosecution of this case, but in no way conceding to the validity of the rejection, Applicant submits herewith a terminal disclaimer and the accompanying fees in compliance with 37 CFR §1.321(c). The present application is commonly owned with U.S. Patent Nos. 6,723,308 and 6,805,136. Applicant thus submits that the terminal disclaimer overcomes the rejection and respectfully requests withdrawal of the rejection.

Specification

The specification has been objected to under 35 U.S.C. §132(a) because it supposedly introduces new matter into the disclosure, specifically the phrase "heating the hair for a duration of at least approximately twenty minutes to approximately forty minutes." After careful review of the specification and

claims as filed, Applicant cannot find the objected to material and therefore respectfully requests the Examiner to specifically point out where such new matter is to be found in the specification.

35 U.S.C. §112

Claims 2, 16 and 29 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner believes that the specification does not provide support for the limitation "heating the hair for a duration of at least approximately twenty minutes to approximately forty minutes." Applicant respectfully traverses and requests reconsideration.

Applicant submits the neither claims 2, 16 or 29 have the limitation of "heating the hair for a duration of at least approximately twenty minutes to approximately forty minutes." Instead, the claims are worded such that the amount of time that the alkaline or hydroxide solution remains in contact with the hair from the beginning of the application step through the heating step until the rinsing step is from at least twenty minutes to approximately forty minutes. Claim 16 states "... the alkaline composition is to be in contact with the hair for a duration of at least approximately twenty minutes to approximately forty minutes" while claim 29 states "... the hydroxide composition remaining in contact with the hair for a duration of at least approximately twenty minutes to approximately forty minutes..." Moreover, in an effort to expedite prosecution of this case without conceding to the validity of the rejection, Applicant has amended claim 2 to clarify that the alkaline composition remains in contact with the hair from the beginning of the application step through the heating step until the rinsing step is from at least twenty minutes to approximately forty minutes.

Amended claim 2 now states "the alkaline composition is in contact with the hair during the steps of applying the alkaline composition and heating the hair *combined* for a duration of at least approximately twenty minutes to approximately forty minutes" (italics added for emphasis).

Basis can be found in the specification for the limitation of having the alkaline solution in contact with the hair for a duration of from about twenty minutes to about forty minutes. On page 14, lines 3-7, a description of the step of applying the alkaline composition to hair along with a subsequent heating step before rinsing the hair is disclosed. The application is described as "taking approximately twenty minutes." See p. 14, line 4. The alkaline composition is then left on the hair from approximately another twenty minutes while being heated. After this additional twenty minutes, the hair is rinsed and the alkaline composition is removed from contact with the hair. Therefore, the alkaline composition initially applied to the hair at time = 0 will be in contact with the hair for the approximately twenty minutes it requires to apply the alkaline composition to all the hair plus the approximately twenty minutes. This is a total of approximately forty minutes and is the maximum time that the alkaline composition remains in contact with the hair. Conversely, the last of the alkaline composition to be applied to the hair will only be in contact with the hair during the approximately twenty minutes that the hair is heated. This is the minimum time that the alkaline composition can be in contact with the hair. Therefore the alkaline composition is in contact with the hair from approximately twenty minutes to approximately forty minutes.

Applicant thus submits that the specification does provide support for the claim limitation of the alkaline solution being in contact with the hair for a duration of from about twenty minutes to about forty minutes. Withdrawal of the rejection is therefore respectfully requested.

Claims 1-34 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, claims 1-14 have been rejected because it is not clear how the hair can return toward the baseline pH of around 4.0 to 6.0 with rinsing and waiting at least 30 minutes before applying an acidic composition when the previous solution was alkaline and the pH of water is usually 6.5-7.5. Claims 15-34 have been rejected because it is not clear what the "hair treatment system" is intended for. Applicant respectfully traverses and requests reconsideration of the rejections.

With respect to claims 1-14, in an effort to expedite prosecution of this case, but in no way conceding to the validity of the rejection, Applicant has amended independent claim 1 to recite "shampooing and rinsing the alkaline composition from the hair." Basis for the amendment may be found on page 14, lines 8-9, of the specification. Shampoos are known in the art to be acidic in order to maintain the acidity of the hair. Therefore, shampooing and rinsing the alkaline solution from the hair, the pH would be expected to begin to bring down the pH. The subsequent waiting step would allow the hair to continue to return towards the baseline pH of around 4.0 to 6.0. Applicant thus submits that amended independent claim 1 and dependent claims 2-14 are definite with respect to normalizing of the pH and therefore respectfully requests withdrawal of the rejection.

With respect to claims 15-34, Applicant submits that it is clear what the "hair treatment system" of those claims is intended for. The Cambridge Dictionary of American English defines a system as being "a set of connected items or devices which operate together." <http://dictionary.cambridge.org/>. Claims 15-34 disclose a "hair treatment system for increasing the manageability of the hair" comprising an alkaline composition and an acidic composition. The

alkaline and acid compositions are connected in that hair is often treated with an alkaline composition to straighten or curl the hair to increase manageability. The acidic composition is then used to help reduce the brittleness that is a by product of the alkaline composition, further increasing the manageability. Therefore there is also a set order that the compositions are applied to the hair. The claim also discloses how these two compositions operate together to form the system, namely that there must be a waiting period prior to rinsing the alkaline composition from the hair and applying the acidic composition. Applicant thus submits that claims 15-34 are not indefinite, because they describe a treatment system for increasing the manageability of hair comprising a set of components which operate together. Withdrawal of the rejection is therefore respectfully requested.

35 U.S.C. §103

Claims 1-4, 8, 9, 15-20 and 22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Samain (U.S. Patent No. 5,570,708) in view of de la Guardia et al. (U.S. Patent No. 4,314,572) or Nguyen et al. (U.S. Published Application 2003/0033677). Applicant respectfully traverses and requests reconsideration.

Applicant submits that the present invention is not obvious over the Samain, de la Guardia or Nguyen patents, either alone or in combination. The Samain patent teaches a method for curling hair comprising a reducing composition comprising reduced thiols. The thiols themselves are not alkaline, but must be kept at an increased pH in order to preventing the reduced thiols from oxidizing, forming disulfide bonds either with themselves or with the thiol moieties in the hair. If this were to occur, in the first case the efficacy of the

composition would be compromised and in the second, it would prevent the thiols in the hair from forming new disulfide bonds which give the hair its new shape. After applying the composition to the hair and waiting a set amount of time, the process of the Samain patent involves rinsing the hair and then letting it rest for a period of up to 60 minutes. This waiting period is dependent on the type of thiol used (column 6, lines 44-50) suggesting to the skilled artisan that this waiting period allows for further neutralization through oxidation of the remaining thiols. It would also allow the hair to begin to reform keratin disulfides decreasing the need for an oxidizing agent. After the resting period the hair is then fixed with a "so-called acidic solution". See column 7, line 4.

As recognized by the Examiner, the Samain patent does not teach the claimed alkaline compound. Nor does the Samain patent teach normalizing the hair by returning it around its natural pH by allowing a resting period. While the present invention teaches that the longer the resting period between the rinsing of the alkaline composition and the application of the acidic composition, with 24 and 48 hours giving the best results, the Samain patent teaches that a resting period of less than 30 minutes is preferable. See column 6, lines 33-50.

The de la Guardia patent teaches a hair straightening/waving composition comprising a guanidine hydroxide solution having a pH of around 13.0. The de la Guardia patent does not teach the application of an acidic composition to the hair after the guanidine hydroxide solution is removed nor does it teach or suggest a resting period after the guanidine hydroxide composition is removed.

Applicant submits that there is no motivation or suggestion to use the guanidine hydroxide composition of the de la Guardia patent in place of the reducing composition of the Samain patent to give the present invention.

Although both compositions are used to restructure hair, the skilled artisan will appreciate that both require different protocols when used to restructure hair. Thiol reducing compositions are known to be gentler in treating hair than strong alkaline compositions such as that taught by the de la Guardia patent. Thiol reducing compositions work by rearranging the disulfide structure of the hair wherein strong alkaline solutions tend relax the overall protein structure of the keratin proteins in the hair. This is the reason thiol reducing compositions are normally used for curling hair and strong alkaline solutions are used for relaxing hair. Since the thiol reducing compositions depend on reducing and reoxidizing the sulfides of the hair, the resting period taught by Samain would be reasonable for aiding in the reoxidizing. Applicant thus submits that since the strong alkaline composition of the de la Guardia patent works in a different manner, it would not be obvious to the skilled artisan, nor would the skilled artisan be motivated to substitute the strong alkaline composition of the de la Guardia patent for the gentler thiol reducing composition of the Samain patent.

The Nguyen patent teaches a hydroxide solution for restructuring hair, including the guanidine hydroxide taught by the de la Guardia patent. For the same reasons giving above for the de la Guardia patent, the skilled artisan would not be motivated to replace the gentler thiol reducing agent of the Samain patent with the hydroxide solution of the Nguyen patent.

Applicant thus submits that neither the Samain, de la Guardia nor Nguyen patents, either alone or in combination, teach the present invention. Nor is there any motivation, either in the patents or in the art to combine the patents to give the present invention. Applicant therefore respectfully requests withdrawal of the rejection.

Claims 1-34 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Syed et al. (U.S. Patent No. 4,602,648) in view of de la Guardia et al. (U.S. Patent No. 4,314,572) and Mueller et al. (U.S. Patent No. 5,002,761). Applicant respectfully traverses and requests reconsideration.

Applicant submits that neither the Syed patent, the de la Guardia patent nor the Mueller patent, either alone or together, teach or suggest the present invention.

The Syed patent teaches an improved hair straightening system comprising applying to hair a composition of sodium and guanidine hydroxides, rinsing the hair, applying a pre-shampoo normalizer, rinsing the hair and shampooing with any conventional shampoo to remove the hydroxides and the normalizer. In contrast to the present invention, the Syed patent does not teach or suggest allowing the hair to return towards the baseline pH of 4.0 to 6.0 by waiting at least 30 minutes, nor does it teach or suggest applying an acidic composition to the hair after such a waiting period.

Moreover, the de la Guardia patent does not make up for such deficiencies of the Syed patent. The de la Guardia patent teaches a hair straightening/waving composition comprising a guanidine hydroxide solution having a pH of around 13.0. Like the Syed patent, the de la Guardia patent does not teach or suggest allowing the hair to return towards the baseline pH of 4.0 to 6.0 by waiting at least 30 minutes, nor does it teach or suggest applying an acidic composition to the hair after such a waiting period.

The Mueller patent teaches an acidic, aqueous hair treatment emulsion used as a hair conditioner for improving the combability and reducing the electrostatic charge of the hair. The Mueller patent does not make up for the

deficiencies of either the Syed or the de la Guardia patents. The Mueller patent does not teach applying an alkaline composition to hair, nor does it teach or suggest allowing the hair to return towards the baseline pH of 4.0 to 6.0 by waiting at least 30 minutes, nor does it teach or suggest applying an acidic composition to the hair after such a waiting period after the application of such an alkaline composition.

Applicant thus submits that neither the Syed, de la Guardia or Mueller patents either alone or in combination, teach or suggest the present invention. Specifically, none of the patents teach or suggest allowing the hair to return towards the baseline pH of 4.0 to 6.0 by waiting at least 30 minutes, nor does it teach or suggest applying an acidic composition to the hair after such a waiting period. Applicant therefore respectfully requests withdrawal of the rejection.

CONCLUSION

Claims 1-34 are believed to be in condition for allowance and such allowance is respectfully requested.

In the event that there are any questions related to these amendments or to the application in general, the undersigned would appreciate the opportunity to address those questions directly in a telephone interview to expedite the prosecution of this application for all concerned.

☒ The Commissioner is hereby authorized to charge payment of the following fees with this communication or credit any overpayment to the account of Bose McKinney & Evans, LLP Deposit Account No. 02-3223:

Appl. No. 10/735,371
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☒ Any filing fees under 37 CFR 1.16 for the presentation of extra claims.

Respectfully submitted,
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